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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------|-----------------------------|----------------------|---------------------|------------------|
| 09/827,428 | 04/06/2001 | Seth J. Orlow | 71369.162 | 6098 |
| 23483 WILMERHAL | 7590 11/02/2007 F/BOSTON | | EXAMINER | |
| 60 STATE STR | REET | | SOROUSH, ALI | |
| BOSTON, MA 02109 | | | ART UNIT | PAPER NUMBER |
| | | | 1616 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 11/02/2007 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|--|---|---|--|--|--|
| • | | Application No. | Applicant(s) | | |
| · | | 09/827,428 | ORLOW ET AL. | | |
| | Office Action Summary | Examiner | Art Unit | | |
| | | Ali Soroush | 1616 | | |
| Period fo | The MAILING DATE of this communication apport Reply | pears on the cover sheet | with the correspondence address | | |
| WHI(- Exte after - If NO - Failt Any | IORTENED STATUTORY PERIOD FOR REPL' CHEVER IS LONGER, FROM THE MAILING Dominions of time may be available under the provisions of 37 CFR 1.1 r SIX (6) MONTHS from the mailing date of this communication. O period for reply is specified above, the maximum statutory period rure to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing led patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMU 36(a). In no event, however, may will apply and will expire SIX (6) No. cause the application to become | NICATION. y a reply be timely filed NONTHS from the mailing date of this communication. BABANDONED (35 U.S.C. § 133). | | |
| Status | | | | | |
| 1)🖂 | Responsive to communication(s) filed on 10 A | <u>ugust 2007</u> . | | | |
| 2a) <u></u> ☐ | This action is FINAL . 2b)⊠ This action is non-final. | | | | |
| 3)[| Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | |
| | closed in accordance with the practice under b | Ex parte Quayle, 1935 (| Σ.D. 11, 453 O.G. 213. | | |
| Disposit | ion of Claims | | | | |
| 4)⊠ | Claim(s) 82 and 93-107 is/are pending in the a | application. | | | |
| | 4a) Of the above claim(s) 93,94 and 97-104 is/ | are withdrawn from cor | sideration. | | |
| 5) | Claim(s) is/are allowed. | | | | |
| · · | Claim(s) <u>82,95,96 and 105-107</u> is/are rejected | | | | |
| • | Claim(s) is/are objected to. | | | | |
| 8)[_] | Claim(s) are subject to restriction and/o | or election requirement. | | | |
| Applicat | tion Papers | | | | |
| 9)[| The specification is objected to by the Examine | er. | | | |
| 10) | The drawing(s) filed on is/are: a) acc | | | | |
| | Applicant may not request that any objection to the | | | | |
| | Replacement drawing sheet(s) including the correct | | | | |
| 11) | The oath or declaration is objected to by the E | xaminer. Note the attac | ned Office Action or form P10-152. | | |
| Priority | under 35 U.S.C. § 119 | | | | |
| 12) | Acknowledgment is made of a claim for foreign | n priority under 35 U.S.C | C. § 119(a)-(d) or (f). | | |
| |) All b) Some * c) None of: | | | | |
| | 1. Certified copies of the priority document | ts have been received. | | | |
| | 2. Certified copies of the priority document | | | | |
| | 3. Copies of the certified copies of the price | | en received in this National Stage | | |
| | application from the International Burea | • | | | |
| * | See the attached detailed Office action for a list | t of the certified copies? | tot received. | | |
| Attachme | | (| 0 | | |
| | ice of References Cited (PTO-892) ice of Draftsperson's Patent Drawing Review (PTO-948) | | ew Summary (PTO-413) No(s)/Mail Date | | |
| 3) 🔀 Info | rmation Disclosure Statement(s) (PTO/SB/08) er No(s)/Mail Date | 5) Notice 6) Other: | of Informal Patent Application | | |

DETAILED ACTION

Acknowledgement of Receipt

Applicant's response filed on 08/10/2007 in response to the Office Action mailed on 06/12/2007 is acknowledged.

Election/Restrictions

Applicant's election of "sunscreen" as the second active agent and "propylene glycol" as the agent that enhances percutaneous administration with traverse is acknowledged. Applicant argues that the search of all claims would not pose an undue burden on the examiner. Applicant's arguments have been fully considered and found not to be persuasive. The examiner has shown that each species is independent and distinct and further has acquired a separate status in the art. In view of their different classifications and modes of action would require a separate search by the examiner and therefore pose an undue burden on the examiner. Therefore, the requirement is still deemed proper and is therefore made FINAL.

Status of the Claims

Claims 1-81 and 83-92 have been cancelled, claim 82 was amended, and claims 93, 94, and 97-104 are withdrawn as being drawn to non-elected subject matter.

Therefore, claims 82, 95, 96, and 105-107 are currently pending examination for patentability.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Applicant Claims
- 2. Determining the scope and contents of the prior art.
- 3. Ascertaining the differences between the prior art and the claims at issue; and resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 1. Claims 82 and 106-107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsia et al. (US Patent 5498607, Published 03/12/1996) in view of Kagan (US Patent 3389051, Published 06/18/1968).

Applicant Claims

Applicant claims a pharmaceutical composition as an ointment, cream, lotion, or emulsion for topical application comprising a compound of formulas II-VIII (as described in the instant claim 82).

Determination of the Scope and Content of the Prior Art (MPEP §2141.01)

Hsia et al. teaches the topical application of at least one phospholipid in the form of a lotion, cream, gel and ointment for the treatment and prevention of atherosclerosis. (See abstract and claim 4). The composition includes a pharmaceutically acceptable carrier and optionally other ingredients such as perfumes, coloring agents, water, and absorption enhancers. (See column 3, Lines 1-2 and 21-25).

Ascertainment of the Difference Between Scope the Prior Art and the Claims (MPEP §2141.012)

Hsia et al. This deficiency is cured by the teachings of Kagan.

Kagan teaches a method of treating atherosclerosis by reducing cholesterol in the body. (See column 2, Lines 16-25 and 36-40). The composition used for the treatment atherosclerosis has as its principal ingredient 3β-(diethylaminoethoxy)-5-androsten-17-one in a variety of unit dosage forms including suspensions in aqueous or oil vehicles. (See column 1, Lines 69-71, Formula I and column 4, Lines 69-75).

Finding of Prima Facie Obviousness Rational and Motivation (MPEP §2142-2143)

It would have been obvious to one of ordinary skill in the art to combine the teachings of Hsia et al. and Kagan. One would be motivated to combine the teachings because both Hsia et al. and Kagan treat the same condition, atherosclerosis. One would be motivated to combine the compound of Kagan with the composition of Hsia et al. in order to increase cholesterol-lowering activity of the composition of Hsia et al. With regard to the limitation that the compound is intended to reduce skin pigmentation, this limitation is an intended use limitation and is not given patentable weight in a composition claim. For the foregoing reasons the instant composition would have been obvious to one of ordinary skill in the art at the time of the instant invention.

2. Claim 105 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsia et al. (US Patent 5498607, Published 03/12/1996) in view of Kagan (US Patent

3389051, Published 06/18/1968) and further in view of Okabe et al. (US Patent 5589192, Published 12/31/1996).

Applicant Claims

Applicant claims a pharmaceutical composition as an ointment, cream, lotion, or emulsion for topical application comprising a compound of formulas II-VIII (as described in the instant claim 82) further comprising a percutaneous enhancer such as polypropylene glycol.

Determination of the Scope and Content of the Prior Art (MPEP §2141.01)

The teachings of Hsia et al. and Kagan have been disclosed above.

Ascertainment of the Difference Between Scope the Prior Art and the Claims (MPEP §2141.012)

The combined teachings of Hsia et al. and Kagan lack a teaching of a composition comprising a compound of a percutaneous absorption enhancer such as polypropylene glycol. This deficiency is cured by the teachings of Okabe et al.

Okabe et al. teaches a topically applicable formulation for local anesthetic. (See abstract). The formulation may further comprise a percutaneous absorption enhancer such as polypropylene glycol. (See column 3, Lines 62-67).

Finding of Prima Facie Obviousness Rational and Motivation (MPEP §2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to combine the teachings of Hsia et al. and Kagan with Okabe et al.

One would be motivated to combine the teachings of Hsia et al. and Kagan with Okabe et al. because Hsia et al. teaches that a percutaneous absorption enhancer can be optionally added to the composition. Therefore, one would have been motivated to add polypropylene glycol as a percutaneous absorption enhancer to the composition of Hsia et al. For the foregoing reasons the instant composition would have been obvious to one of ordinary skill in the art at the time of the instant invention.

3. Claim 82, 95, 96, 106, and 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. (US Patent 6020323, Published 02/01/2000, Filed 06/07/1995) in view of Kagan (US Patent 3389051, Published 06/18/1968).

Applicant Claims

Applicant claims a pharmaceutical composition as an ointment, cream, lotion, or emulsion for topical application comprising a compound of formulas II-VIII (as described in the instant claim 82) further comprising a sunscreen.

Determination of the Scope and Content of the Prior Art (MPEP §2141.01)

Cohen et al. teaches a composition that regulates active TNF-α. (See title). A composition comprising low molecular weight heparins is used to inhibit TNF-α and therefore help ameliorate the pathogenic process of atherosclerosis. (See column 15, Lines 43-47 and column 16, Lines 11-14). Such a composition can be formulated to be applied topically and be further supplemented to have protective action of a cosmetic such as sunscreen agents. (See column 24, Lines 26-37 and 42-45).

Ascertainment of the Difference Between Scope the Prior Art and the Claims
(MPEP §2141.012)

Cohen et al. lacks a teaching of a composition comprising one of the compounds represented by formulas II-VIII in instant claim 82. This deficiency is cured by the teachings of Kagan.

The teachings of Kagan are disclosed above.

Finding of Prima Facie Obviousness Rational and Motivation (MPEP §2142-2143)

It would have been obvious to one of ordinary skill in the art to combine the teachings of Cohen et al. and Kagan. One would be motivated to combine the teachings because both Cohen et al. and Kagan treat the same condition, atherosclerosis. One would be motivated to combine the compound of Kagan with the composition of Cohen et al. in order to increase cholesterol-lowering activity of the composition of Cohen et al. With regard to the limitation that the compound is intended to reduce skin pigmentation, this limitation is an intended use limitation and is not given patentable weight in a composition claim. For the foregoing reasons the instant composition would have been obvious to one of ordinary skill in the art at the time of the instant invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Soroush whose telephone number is (571) 272-9925. The examiner can normally be reached on Monday through Thursday 8:30am to 5:00pm E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number For the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ali Soroush Patent Examiner Art Unit: 1616

> Sabiha Qazi Primary Patent Examiner Technology Center 1600